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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,224	06/12/2000	Ulrich Emmerling	GR 99 P 2011	5498

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Lerner and Greenberg PA
Patent Attorneys and Attorneys at Law
2200 Hollywood Boulevard
Hollywood, FL 33020

EXAMINER

YANG, CLARA I

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/592,224

Applicant(s)

EMMERLING ET AL.

Examiner

Clara Yang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 06.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed on 13 October 2000 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the foreign patent document DE 196 22 720 A1 referred to therein has not been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1 - 6, 8, 9, 11, 12, and 14 - 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Shober U.S. Patent No. 5,952,922.

Referring to Claims 1 and 14, Shober's monitoring system comprises: (a) a transmitting and receiving station (hereinafter referred to as an "interrogator") configured to transmit an information signal (hereinafter referred to as an "interrogation code signal"); and (b) a plurality of transponders configured to simultaneously generate and transmit a response signal to the interrogator upon receipt of the interrogation code signal. (See Col. 2, lines 2 - 6 and Col. 15, lines 50 - 60.)

Regarding Claims 2, 16, and 17, the limitation "wherein said transmitting and receiving station is selectively configured to transmit the interrogation code signal at regular intervals, at irregular intervals, or as a reaction to a triggering event" is interpreted to mean that the interrogator is pre-configured to transmit interrogation signals at regular intervals, irregular intervals, or as a reaction to a triggering event. Shober teaches that in the location and messaging modes, an applications processor instructs some or all of the interrogators to transmit an interrogation signal to a specific transponder or transponders (see Col. 2, lines 64 - 66; Col. 3, lines 1-6; and Col. 9, lines 13 - 20 and 56 - 62). Here it is understood that the receipt of an instruction signal from an applications processor is a triggering event. Because the interrogator is triggered to transmit an interrogation code signal by the applications processor when operating in the location or messaging modes, it is understood that the interrogation code signal is transmitted at irregular intervals.

Regarding Claim 3, as shown in Fig. 3, Shober's transponder has a clock recovery circuit 304 for recovering synchronization from the interrogation code signal and for effecting synchronization when transmitting a response signal (see Col. 4, lines 18 - 27; Col. 5, lines 27 - 28 and 31 - 34; and Col. 13, lines 51 - 54). Here it is understood that the clock recovery circuit is a synchronization device.

Regarding Claims 4, 5, and 18, Shober teaches that the interrogation code signal for each and all transponders contains framing and other synchronization information (see Col. 8, lines 52 - 55). Because Shober also discloses that the data in the interrogation code signal enables the transponders to synchronize to the timing of the interrogator (see Col. 13, lines 51 - 54), it is inherent that each transponder's synchronization device effects synchronization in accordance with the synchronization information that is contained in the interrogation code signal.

Regarding Claims 6, 9, and 19, each of Shober's transponders has a subcarrier frequency generator for generating a subcarrier frequency that is used to modulate the carrier frequency signal common to all transponders (see Fig. 3, subcarrier generator 308; and Col. 15, lines 41 - 55). Because Shober teaches that the transponders send their response signals by using modulated backscatter (see Abstract), it is understood that the frequency of the continuous wave signal transmitted by the interrogator is the carrier frequency of the response signals; consequently, it is inherent that the carrier frequency is common to all transponders. After receiving an interrogation code signal, each transponder's processor generates an information signal that is then sent to a modulator control circuit. The modulator control circuit uses the information signal to modulate a subcarrier frequency. The modulated subcarrier signal is then modulated upon the received continuous wave signal by a second modulator in order to produce modulated backscatter. (See Col. 4, lines 29 - 34 and 40 - 45.)

Regarding Claims 8, 11, and 20, Shober's interrogator has a plurality of input channels with filters in order to isolate the subcarriers of the received response signals (see Fig. 15, filters f_{s1} and f_{s2} ; Col. 18, lines 40 - 67; and Col. 19, lines 1 - 28).

Regarding Claim 12, Shober's interrogators form a part of an access control system (see Col. 1, lines 62 - 67 and Col. 2, lines 1 - 6).

Regarding Claim 15, as shown in Fig. 11, the interrogation code signal (or the "downlink") is transmitted at regular time intervals.

5. Claims 1, 2, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Schuermann U.S. Patent No. 5,552,789.

Referring to Claim 1, Schuermann's system comprises (a) an on-board interrogation unit (hereinafter referred to as an "interrogator") configured to transmit an interrogation code signal; and (b) a plurality of transponders configured to generate and transmit a response signal to the interrogator upon receipt of the interrogation code signal. (See Abstract and Col. 3, lines 5 - 17).

Regarding Claim 2, Schuermann's interrogator is able to transmit an interrogation code signal at regular time intervals (see Col. 8, lines 46 - 48) or only at a permissible time interval of need for information (see Col. 9, lines 47 - 49). Here it is understood that a permissible time interval of need is an irregular interval.

Regarding Claims 12 and 13, Schuermann's interrogator is mounted in a motor vehicle, and his monitoring system is a motor vehicle access control system, which is a type of an access control system (see Abstract; Col. 2, lines 60 - 63; and Col. 3, lines 59 - 67).

6. Claims 1, 6, 7, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Schuermann U.S. Patent No. 5,347,280.

Referring to Claim 1, Schuermann's monitoring system comprises: (a) an interrogator configured to transmit an interrogation code signal; and (b) a transponder configured to generate and transmit a response signal upon receiving the interrogation code signal. (See Col. 3, lines 9 - 15.) Because Schuermann teaches that there is a need for a transponder that permits access verification by which only people whose transponder returns certain identification data to the interrogator are allowed access to a specific area (see Col. 1, lines 42 - 46), it is understood that Schuermann's system is designed to accommodate a plurality of transponders.

Regarding Claims 6 and 9, each of Schuermann's transponders contains a subcarrier frequency generator (see Col. 3, lines 38 - 40). The subcarrier signal is then modulated with a baseband data signal, and the modulated subcarrier signal is then used to modulate the carrier frequency signal (see Col. 2, lines 13 - 19).

Regarding Claims 7 and 10, each of Schuermann's transponders also has a resonant circuit 24 as shown in Fig. 2 that forms a carrier frequency signal (see Col. 3, lines 27 - 29). Here it is understood that resonant circuit 24 is a carrier frequency generator. Schuermann's transponder further comprises a transponder controller 30 that generates a response message at its output (see Col. 4, lines 16 - 18). Because the response message is then modulated upon the carrier frequency signal via switch 32 or the second modulator (see Col. 4, lines 18 - 20), it is understood that the response message is the modulated subcarrier signal referred to in Col. 2, lines 15 - 16. Consequently, it is inherent that the transponder controller has a first modulator in order to modulate the subcarrier signal with the baseband data signal.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- ♦ Hook et al. U.S. Patent No. 5,450,492: Hook teaches one or more portable transponders for storing variable identification data and for transmitting an information signal containing the identification data. An independent response channel can be selected according to the requirements of each installation or application, thereby allowing response signals to be transmitted by transponders at a frequency that differs from the frequency of an interfering signal. Furthermore, the transponder generates an information signal imposed on a carrier frequency that is neither derived from nor related to the frequency of the excitation field.
- ♦ Kleefeldt et al. U.S. Patent No. 5,561,420: Kleefeldt teaches a transceiver in the motor vehicle that generates the interrogation signal when the switch is actuated, receives a transponder's response signal that contains a callback code word, extracts the callback code word from the response signal, compares the extracted callback code word with a predetermined callback code word, and sends a release signal to the controller when the extracted callback code word corresponds to the predetermined callback code word to actuate the elements.
- ♦ MacLellan et al. U.S. Patent No. 5,929,779: To allow multiple transponders in the reading field at one time, MacLellan imparts that the transponder could randomly select one of the available subcarrier frequencies and transmit their return signals.
- ♦ Beigel et al. U.S. Patent No. 6,249,212: Beigel's universal interrogator and transponders are able to effect a variety of modulation types such as piggy-backing one modulation type on another as, for example, when a subcarrier is frequency shift keyed (FSKed) in accordance with the bits in a message, and then the carrier is amplitude modulated by the FSKed subcarrier.
- ♦ Achhammer et al. U.S. Patent No. 6,396,390: Achhammer's vehicle security system comprises an interrogator located in a vehicle and a portable transponder. Achhammer teaches that the interrogator transmit interrogation code signals either at regular or irregular time intervals.

CR

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 350-3900.

CY
October 30, 2002


BRIAN ZIMMERMAN
PRIMARY EXAMINER